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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,863	05/08/2000	ULRICH BENZLER	10191/1227	5597

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

AN, SHAWN S

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/462,863	Applicant(s) BENZLER ET AL.	
	Examiner Shawn S. An	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Remarks

1. Applicant's remarks as filed on 2/27/06 have been fully considered but they are not persuasive.

The Applicant presents arguments comprising:

I) Borer's teaching of MV detecting comprising aliasing reducing interpolation is a special kind of interpolation filtering, therefore, has a totally different meaning in comparison to the Applicant's invention;

II) there is no motivation for the overall teachings of Ziegler and Borer;

III) improper hindsight reasoning for combining Ziegler, Borer, and Yamashita et al; and

IV) no suggestion/teaching of dependent claim 8 limitation.

However, after careful scrutiny of the cited prior art references, the Examiner must respectfully disagree, and maintain the grounds of rejection for the reasons that follow.

In response to argument I), it may be true that Borer's teaching of MV detection process comprising aliasing reducing interpolation filtering has specifically different purpose than the Applicant's inventive feature of utilizing aliasing reducing interpolation filtering. However, the Examiner notes that a concept of aliasing reducing interpolation filtering is conventionally well known in the art for a simple reason of reducing the unwanted aliasing. Furthermore, both Borer and Applicant's inventive feature of utilizing aliasing reducing interpolation filtering occurs in motion estimating stage. Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a method for generating an image when estimating a motion of image sequences as taught by ZIEGLER to incorporate the well known conventional concept as discussed above by Borer so as to reduce the unwanted aliasing by performing aliasing reducing interpolation filtering, thereby preventing image deterioration and improving interpolation performance.

In response to argument II) that there is no suggestion/motivation to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, please refer to ***response to argument I***, as discussed directly above.

In response to argument III) that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to argument IV), Nakaya et al teaches utilizing bilinear interpolation as an interpolation process using four neighboring pixels around the interpolation point (col. 2, lines 41-47). Therefore, in other words, Yamashita's teaching of an adaptive interpolation method comprises a concept wherein more than four neighboring pixels are utilized for an interpolation of each pixel, which are more neighboring pixels than are utilized for Nakaya's bilinear interpolation, which clearly meets the claim 8 limitation.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2621

3. Claims 6-7, 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over ZIEGLER (Corporate Research & Development) in view of Borer (6,069,670) and Yamashita et al (5,347,599) as previously discussed in the last Office action as filed on 9/19/05.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over ZIEGLER, Borer, and Yamashita et al as applied to claim 6 above, and further in view of Nakaya et al (5,684,538) as previously discussed in the last Office action as filed on 9/19/05.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over ZIEGLER, Borer, and Yamashita et al as applied to claim 6 above, and further in view of Eifrig et al (5,991,447) as previously discussed in the last Office action as filed on 9/19/05.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

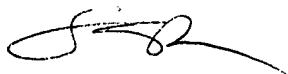
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.

Art Unit: 2621

8. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SHAWN AN
PRIMARY EXAMINER

5/14/06